We claim:

1. A method of producing polyphosphazene microspheres comprising:

   (a) admixing an aqueous solution containing a water-soluble polyphosphazene and an aqueous solution containing an organic amine, or a salt thereof, and

   (b) allowing the reaction mixture to stand for an effective period of time to form thereby polyphosphazene microspheres.

2. The method of Claim 1, wherein said water-soluble polyphosphazene and said organic amines are fed to the mixture over an extended period of time.

3. The method of Claim 1, further comprising adding water or aqueous buffer solution to stabilize the microspheres.

4. The method of Claim 1, further comprising recovering said polyphosphazene microspheres.

5. The method of Claim 1 wherein said organic amine is spermine.

6. The method of Claim 1 wherein said polyphosphazene is poly[di(carboxylatophenoxy)phosphazene].

7. The method of Claim 1 wherein said microspheres have diameters of from about 1μm to about 10 μm.

8. A method of producing polyphosphazene microspheres containing material to be encapsulated comprising:

(a) admixing an aqueous solution containing a water-soluble polyphosphazene and an aqueous solution containing material to be encapsulated to form a reaction mixture;

(b) then admixing to said reaction mixture an aqueous solution containing an organic amine, or a salt thereof;

(c) allowing the reaction mixture to stand for an effective period of time to form thereby polyphosphazene microspheres;

9. The method of Claim 8 wherein said material is a biologically active material selected from the group consisting of proteins, biologically active synthetic compounds, nucleic acids, polysaccharides, and antigens.

10. The method of Claim 9 wherein said antigen is derived from organisms selected from the group consisting of rotovirus, measles, mumps, rubella, polio, hepatitis A, hepatitis B, herpes virus, human immunodeficiency virus, influenza virus, *Haemophilus influenza, Clostridium tetani*, *Corynebacterium diphteria,* and *Neisseria gonorrhea.*

11. A vaccine comprising the polyphosphazene microspheres made by the methods of claims 8, 9, or 10.